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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,377	11/14/2001	Sadato Akahori	Q67294	6696
7590	11/26/2004			
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 Pennsylvania Avenue, N.W. Washington, DC 20037-3213			EXAMINER UPRETI, ASHUTOSH	
			ART UNIT 2623	PAPER NUMBER

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/987,377

Applicant(s)

AKAHORI, SADATO

Examiner

Ashutosh Upreti

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/14/2001.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to because of incorrect spelling in Figures 4 and 5A. In Figure 4, "brest" appears four times and is an incorrect spelling (changing this to "breast" would cure this problem). In Figure 5A "avobe" appears in a caption and is an incorrect spelling (changing this to "above" would cure this problem). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 3 and 8 are objected to because of the following informalities: in claims 3 and 8, "outputting one of the image after the image processing and the image constructed in the layout based on the image attendant information in accordance with a user's instruction" is ungrammatical. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-11 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller (U.S. Patent 6,687,331) in view of Bae (U.S. Patent Publication 2003/0228041 A1).

Muller discloses a medical image processing method, which uses an image obtained by radiography (Figure 2a) and read by an image reading apparatus (column 7 line 13 – if an image is displayed to a screen it must be being read), said method comprising the steps of:

Executing image processing of the image data (column 7 lines 5-7). Here rotating an image is a form of image processing.

Reading output-format control information corresponding to the photographing condition (column 3 lines 36-39 – here the orientation / inverting state of the image is

obtained, which corresponds to the photographing condition) from a predetermined set of output-format control information (Figure 5, column 4 lines 1-2 and the table in column 6) to be used to control an image format when the image is output (column 3 lines 44-47) on a film (column 7, line 15);

Constructing layout of the image to be output on the basis of the read output-format control information (column 3 lines 44-47).

Muller does not expressly disclose the step of receiving the image data and photographing condition when the image is obtained.

Bae discloses the mixing of digital information (e.g. table position) with the scan signal (paragraph 0030 lines 15-19). This means that the photographing condition is obtained when the image is obtained. Muller was not cited for this limitation as it does not indicate when the photographing condition information is obtained.

At the time the invention was made it would have been obvious to a person of ordinary skill in the art to combine information on photographing condition and the image data when the image is obtained as both pieces of information need to go to the same end user.

One of ordinary skill in the art would have been motivated to do this as it ensures that the image and its associated photographing condition data are kept together and not mixed up with other images and data.

As to claim 2, it is inherent that the photographing condition is determined in accordance with a portion to be photographed, as you can't photograph something without the condition being in accordance with the object. Of additional relevance,

Muller discloses that the photographing condition (positioning) is determined in accordance with a portion (organ) to be photographed (column 1 lines 16-17).

As to claim 3, Bae further discloses storing output-format control information as image attendant information of the image data (paragraph 0030 lines 15-19). Here the position information is treated in a similar way as other attendant information (like patient name) (paragraph 0030 line 12) and is mixed with the scan signal (paragraph 0030 line 16). Muller also discloses outputting the image after the image constructed in a layout based on the image attendant information (column 6 lines 29-30 – the standard referred to is the convention in column 3 lines 56-58, which talks about position etc, which according to the first part of this claim is now stored as attendant information) in accordance with a user's instruction (column 6 line 34).

Regarding claim 5, the limitations of the claim are rejected as the same reasons set forth in claim 1 (relating to inverting state of the image).

Regarding claim 6, the limitations of the claim are rejected as the same reasons set forth in claim 1.

Regarding claim 7, the limitations of the claim are rejected as the same reasons set forth in claim 1.

Regarding claim 8, the limitations of the claim are rejected as the same reasons set forth in claim 3.

Regarding claim 9, the limitations of the claim are rejected as the same reasons set forth in claim 3. Furthermore, outputting image attendant information and the image

data are disclosed in Bae (paragraph 0030 lines 8-11). Here the attendant information (e.g. patient name) is within the header section of the image data file.

Regarding claims 10 and 11, the limitations of the claim are rejected as the same reasons set forth in claim 2.

Regarding claims 14 and 15, the limitations of the claim are rejected as the same reasons set forth in claim 5.

As to claim 16, Muller discloses constructing image layout based on image data (column 3, lines 44-47). Here the image is rotated because the image in the image data is reversed (column 3, line 39). Bae discloses storing output-format control information as image attendant information of the image data (paragraph 0030 lines 15-19). Here the position information is treated in a similar way as other attendant information (like patient name) (paragraph 0030 line 12) and is mixed with the scan signal (paragraph 0030 line 16). For this reason, the position information is considered to be image attendant information. The reversed image of Muller, described above, was obtained due to the position at which the image was taken, and since position has been determined to be attendant information, it follows that attendant information is used in output layout. Another example of what can be considered attendant information used in layout determination, is the use of abbreviations in Muller (column 4 line 34) indicating image positions and orientations. Means for outputting the image constructed in said layout is disclosed in Muller as the reference talks about x-ray devices/methods, which output an image to a video, screen and/or print it (column 1, line 27).

Claims 4, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Müller (U.S. Patent 6,687,331) in view of Bae (U.S. Patent Publication 2003/0228041 A1) further in view of Nields (U.S. Patent 6,459,925).

As to claim 4, the combination of Muller and Bae discloses the image processing method of claim 1, on which this claim is dependent. The combination of Muller and Bae does not expressly disclose the ability to preview and adjust an image to be output on film.

Nields discloses the ability to preview and adjust an image (Figure 17, buttons in this software interface indicate the ability to review images, zoom and squeeze) to be output on film (column 8 line 12). Although Figure 17 refers to an ultrasound image, Nields discloses that this product can be used for both x-ray and ultrasound (column 7 line 5 and line 9). At the time of the invention it would have been obvious to a person of ordinary skill in the art to use the software package in Nields to preview and adjust images in Muller as they both deal with radiographic images. One of ordinary skill in the art would have been motivated to do this as it would give the user a lot more options when it came to getting the best images for medical diagnoses.

Regarding claims 12 and 13, the limitations of the claim are rejected as the same reasons set forth in claim 4.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashutosh Upreti whose telephone number is (703) 306 4087. The examiner can normally be reached on Monday-Friday.




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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703)308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A.U.  
November 23, 2004

  
Jon Chang  
Primary Examiner